National Aeronautics and Space Administration

#### Headquarters

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NASA

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Office of Legislative Affairs

Reply to Attn of:

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#### MEMORANDUM FOR THE RECORD

Subject: Hearing on the NASA Workforce Strategy before the House

Science Committee, Subcommittee on Space and Aeronautics

**Date:** June 13, 2006

Members Present: Republicans:

Chairman Ken Calvert (R-CA)

Tom Feeney (R-FL)

Mario Diaz-Balart (R-FL)

**Democrats:** 

Ranking Member Mark Udall (D-CO)

David Wu (D-OR) Michael Honda (D-CA) Sheila Jackson Lee (D-TX) Charles Melancon (D-LA)

Al Green (D-TX) Jim Costa (D-CA)

## Witnesses:

- Ms. Toni Dawsey, Assistant Administrator, NASA Office of Human Capital Management
- Dr. Lee Stone, Vice President of Legislative Affairs, IFPTE, Ames Local 30, presenting testimony for Mr. Gregory L. Junemann, President, IFPTE
- Dr. David C. Black, President and CEO, Universities Space Research Association, Co-chair, National Research Council's Committee on Issues Affecting the Future of the U.S. Space Science and Engineering Workforce
- Mr. John W. Douglass, President and CEO, Aerospace Industries Association of America

#### **Hearing Summary**

On June 13, 2006, the House Subcommittee on Space and Aeronautics held a hearing on "The NASA Workforce: Does NASA Have the Right Strategy and Policies to Retain and Build the Workforce It Will Need?" Ms. Toni Dawsey, Assistant Administrator for the NASA Office of Human Capital Management (OHCM), testified on behalf of NASA. Major topics of question and discussion at the hearing included: the level of "uncovered capacity" in NASA's workforce and how the Agency is addressing the problem, the best ratio of contractor-to-civil service workforce to carry out NASA's exploration goals, and the stability and ability of the Space Shuttle workforce to ensure continued safety of the program as it transitions through Shuttle retirement and into CEV/CLV systems support.

# **Summary of Member Opening Remarks**

Chairman Calvert began the hearing by noting the release of both NASA's workforce strategy in April and the National Research Council (NRC) interim report on workforce requirements to support the Vision for Space Exploration. He stated that NASA's report is less than specific on skills that will be needed and how they will be retained, and pointed to the NRC assessment that NASA does not currently have the expertise required to support the new exploration goals. Noting the age and decline in number of the NASA workforce, he summarized key questions facing NASA: Is the Agency keeping the skills it will need? How will NASA prepare for future workforce needs? What are the tradeoffs associated with in-house vs. contracted work? How has the Agency been successful in recruiting and retaining skilled workers? What are those critical skills?

Ranking Member Udall acknowledged the Subcommittee's concern for ensuring a right-sized workforce for NASA. He noted that an exploration initiative that eliminates or cuts other core NASA missions may be difficult to sustain and likewise a workforce strategy that focuses only on that initiative may also be hard to sustain.

## **Summary of Witness Opening Statements**

**Dr. Lee Stone**, testifying for the **IFPTE** on behalf of President Greg Junemann, opened his remarks by stating that NASA does not have the right strategies and policies to retain and build the required workforce. He assessed that a faulty competency management system, improper reliance on term positions, and full-cost recovery of civil service salaries were at the core of NASA's current workforce problems. While praising Administrator Griffin for the Constellation work assignment effort, he laid out five recommendations for NASA: 1) Pledge not to layoff NASA employees in the foreseeable future, 2) request enhanced buyout authority, 3) institute an "S-CAP" type of account to cover 25 percent of employee time, 4) embrace "genuine and auditable" full-cost accounting, and 5) re-embrace NASA's aeronautics, science and technology missions.

Dr. David Black, testifying on behalf of the NRC's Committee on Meeting the Workforce Needs of the National Vision for Space Exploration, acknowledged that the Committee's study is not yet complete, and should be finished by the end of the year. He stated the Committee's initial view that the NASA workforce strategy is incomplete and more theoretical than empirical. He stated that the most critical decisions facing the Agency are 1) the amount of work to be done in-house versus outside (the "make-buy" ratio), 2) how to ensure requisite training of employees entering both the government and private sector workforce supporting its missions, and 3) how to provide a sense of assurance and promise to its potential future workforce, noting the eroding effect of research funding reductions to NASA's ability to attract the "best and brightest." He also stated that NASA will need to determine how much expertise it will ultimately sustain in microgravity, life and physical sciences, noting the difficulty in "turning off" and "turning on" the supporting communities. Dr. Black assessed that buying what is needed may be preferable in terms of taking advantage of expertise that is already available and unencumbered by civil service rules. He closed by noting the Committee's feeling that NASA should not seek solutions to its skill mix challenges in isolation, but with the benefit of possible solutions available from the entire "workforce ecosystem."

Mr. John Douglass, testifying for the AIA, remarked on three trends in the national aerospace workforce: aging, globalization, and an influx of new workers, with continued growth anticipated for the future. He noted that increased industry competition will affect NASA's ability to compete for resources in the out-years of its current mission. Mr. Douglass stated that industry has flexibility and broad-based research and development resources, making it attractive for meeting shorter-term needs, while longterm efforts that require a lot of basic research, not well supported by industry and dependent upon key facilities, may be best done through the civil service process, such as space and earth science. In terms of required critical skills, Mr. Douglass stated that NASA will need to "beef up" its systems engineering capability. He went on to note his concern for a need at NASA for a skill set similar to that of DARPA to support prototype development efforts. Mr. Douglass presented a chart that expressed the numbers of workers currently trained in the aerospace disciplines, compared to a significantly smaller number who are actually working in the field. He summed up his statement by stating that industry has the capacity to absorb work for NASA as required, and that the longterm limiting factor will not be human capital, but monetary capital, or how much the Nation can afford to invest in NASA's resources.

## **Summary of Major Questions/Discussion**

Chairman Calvert asked Ms. Dawsey whether, based on the current uncovered capacity estimates, NASA would actually be laying off employees, and how would we ensure that eliminating those employees would not create new skill gaps for the Agency?

Ms. Dawsey replied that it is too early in the process to assess. She pointed to new Center work assignments, movement of work between Centers, and retraining efforts planned or underway, and stated that a reduction-in-force continues to be a tool of last resort.

Chairman Calvert invited Dr. Stone to comment on the areas or policies that are deficient in the NASA workforce strategy. Dr. Stone pointed to NASA's competency management system, explaining that NASA's current set of calculations are all based on use of only one database that represents only the competencies of current positions, and not the complete array of skills that the workforce currently has to offer. He went on to state that the current uncovered capacity estimate is an arbitrary or subjective estimate based on "good vs. bad G&A costs." He explained that under the accounting system, program managers do not include sufficient funding for labor and procurement costs, forcing center managers to "put people on G&A" to free up funds.

Congressman Udall asked Ms. Dawsey if NASA has a target ratio for the percentage of in-house work to contracted work, and whether the Agency has a metric for determining if there is an imbalance. Ms. Dawsey replied that there is not a target number, and that NASA has asked the National Academy of Public Administration to study the civil service/contractor blend and provide guidelines for making those determinations. She noted that all inherently governmental work is performed in-house, and that about 80 percent of NASA's budget is spent on contracted work.

Congressman Udall asked the rest of the panel to comment on the issue. Mr. Douglass noted the need for stability in whatever decision is made, that the "in-out, in-out" phenomenon that occurs from one administrator to the next creates difficulty. Dr. Black noted that the (NRC) committee has not reached a recommendation on the balance of inhouse and contracted work, but suggested that NASA engage industry, academia, and other elements of the government engaged in space-related research to approach it as a joint national problem in order to come to a solution.

Dr. Stone referred to the Columbia accident and language in the CAIB report pointing to NASA's over-dependence on contractors and eroded contract management, owing to lack of experience, as a contributing factor to the accident. He noted the need for a technically proficient in-house workforce to ensure proper oversight of contracted activities. Ms. Dawsey agreed that program and project management capability needs to be retained within the Agency in order to assure responsible stewardship of taxpayers money, and smart buying decisions. She noted the Administrator's statements that intellectual capital should reside in-house so that program momentum and institutional memory can be sustained over time.

Congressman Honda expressed concern that NASA is "being asked to do an impossible task with decreasing resources and revenue." He asked Ms. Dawsey and Dr. Stone whether the current problem is due to the Administration's unwillingness to fund the Agency at a level sufficient to support the demands of the exploration initiative. Ms. Dawsey replied that the Vision for Space Exploration was endorsed by the Congress and that NASA developed a budget that the Agency believes will enable implementation of the Vision. She acknowledged that when programs are redirected, there are certain skill sets that are no longer needed, and that NASA is addressing the problem through

retraining, on-the-job rotational experiences, mentoring, and coaching programs. She stated that NASA is pursuing new program/project management training and systems engineering training, and that the Agency is partnering with DoD to help reskill workers.

Dr. Stone agreed with Congressman Honda's assessment, stating that it is not a workforce crisis, but a budget crisis, and that NASA is being asked to continue doing the work it has been doing, in addition to the new job of developing the new exploration systems, with one paycheck. He stated that the Science Committees on both sides of Congress endorsed the Vision, but supported it with an Authorization act that funded the Vision for Space Exploration, Shuttle & ISS, as well as aeronautics and science. He noted that the funding levels put forward by the Administration do not meet those authorized levels.

Mr. Douglass stated that from the outside looking in, the uncovered capacity issue appears to be more of a funding issue than a national requirements issue. Dr. Black noted the study committee's view that the uncovered capacity is a short-term issue that they will not try to address, but their sense is that NASA does not have the expertise it will require in the next five years. He noted that they are looking at the broader workforce in the long term, or longer than the next five years. In that timeframe, he stated that it is appropriate to think about training and hiring, and pointed to the success of DOD in providing cradle-to-grave experience to employees. He noted that such an experience is not there at NASA.

Chairman Calvert and Congressman Melancon asked questions related to the Shuttle workforce transition. Chairman Calvert asked what actions or incentives NASA is using to ensure that we keep the workforce necessary to safely fly the Shuttle through its remaining flights while transitioning to the CEV and attempting to minimize the gap. Congressman Melancon stated his concern for the welfare of technical capabilities at the Michoud Assembly Facility in his District. He asked Ms. Dawsey how much of the existing Shuttle civil service and contractor workforce will be needed for the Exploration initiative and what are NASA's plans for the remaining Shuttle workforce.

Ms. Dawsey replied that there is no precise number, and that NASA is working to reskill employees on the Shuttle program. She noted optimism for the approach of new work assignments, reassignments and retraining in addressing the problem. She elaborated on workforce sharing between Exploration Systems and Shuttle Operations, on-the-job learning details, and reassignments from the Shuttle program to Exploration work. She noted that, as much of the Exploration work is Shuttle-derived, many of the employees may not even require retraining. She made note of NASA's Career Transition Assistance Program to assist employees, and stated that NASA is working closely with its contractor community to keep them included in the planning process, and that they also have transition plans in place.

Congresswoman Jackson Lee made statements critical of the current state of support for biological and physical research, aeronautics and science programs, noting an undermining of U.S. prominence in science. She stated that choices have to be made from "the bully pulpit," or White House, on whether the U.S. will invest in collaborative international efforts on the ISS and the Shuttle and new CEV system. She asked Dr. Stone what NASA could do with respect to the pathway of training for young people not in the sciences if we were to "turn the corner of funding." Dr. Stone expressed concern that NASA is "talking contraction while also talking about a Vision." He stated that with implementing the Vision for Space Exploration, NASA will also accomplish its role of inspiring a new generation of engineers and scientists, as it has in the past with Apollo. He called for consistency and stability and stated that the NASA workforce is ready to do the job. Congresswoman Jackson Lee followed by noting concern about disruption to safety and careers, and again stressed the need to fund the scientific community to ensure our international viability. Chairman Calvert and Congresswoman Jackson Lee both made statements regarding the need for a bipartisan approach to rebuilding the scientific community.

Mr. Black and Dr. Stone both noted the harmful impact of the fear of RIF and layoffs and urged NASA to "stop the RIF threats." Congressman Melancon followed by asking what Congress could do to support that action. Dr. Stone noted that IFPTE has asked the appropriators for bill language precluding any spending of funds to prepare or execute a RIF. He asked for their support in urging the Administrator to announce there will be no RIF under his watch, and thereby ensure workforce morale and the promise of being able to recruit young people into the Agency. Congresswoman Jackson Lee asked Ms. Dawsey if there was any intent to close any NASA centers. Ms. Dawsey replied that there is not.

Copies of NASA testimony and hearing summaries can be found at the NASA Office of Legislative Affairs website at <a href="http://legislative.nasa.gov/">http://legislative.nasa.gov/</a>. Copies of other witnesses opening statements can be found on the House Science Committee website at <a href="http://www.house.gov/science/">http://www.house.gov/science/</a>.

Kathleen Murphy

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